WIRELESS CONSUMERS ALLIANCE INC.

EX PARTE OR LATE FILED

January 13, 1999

Ms. Magalie Roman Salas
Office of the Secretary
Federal Communications Commission
The Portals
445 Twelfth Street, S.W.
12th Street Lobby, TW-A325
Washington, D.C. 20554

Re: Ex Parte Presentation
CC Docket No. 94-102

Dear Ms. Salas:

Wireless Consumers Alliance ("WCA") is a nonprofit corporation which was organized to support and continue the efforts initiated by the Ad Hoc Alliance for Public Access to 911 ("Alliance") in Docket 94-102. Pending before the Commission is a proposal made by the Alliance that would require cellular telephones to automatically select the strongest available compatible signal when 911 is dialed. ("Strongest Signal"). This proposal was recently modified to establish a signal threshold before the Strongest Signal selection is implemented. ("Strongest/Adequate Signal"). In response to this modification, CTIA proposed, in the alternative, that cellular telephones be programed to automatically switch to an A/B mode when 911 is dialed. ("Automatic A/B Roaming").

On December 4, 1998, The Cellular Telecommunications Industry Association ("CTIA") filed a response to ten questions by Dan Grosh, Special Counsel in the Policy Division, about Automatic A/B Roaming. We disagree with some of the statements and conclusions reached by CTIA in its response ("CTIA Response"). This letter is for the purpose of clarifying and correcting the record and taking issue with some of the claims and assertions made in the CTIA Response.

Background

On October 27, 1995, the Strongest Signal proposal was filed with the Commission by the Alliance. Specifically, the proposal was to amend "Part 22, sub part k, paragraph 22.933, which incorporates OET-53 cellular system mobile station-land station compatibility specifications, to define how mobile telephones operate. Paragraph 2.6.3.2 of OET-53 defines how a mobile unit

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will scan its preferred system channels during call origination." The Alliance proposed the following addition to the beginning of this paragraph:

> "If the purpose of this 'origination' is to complete a call to 911 (an emergency call), the mobile station must examine the signal strength of all of the control channels assigned to System A and System B and select the channel with the strongest signal. In all other cases, . . ."

The Strongest /Adequate Signal proposal was an effort on the part of the Alliance to address the "concern" of the 911 administrators that Strongest Signal would divert 911 calls from the preferred system even if there was an adequate signal level then available to establish voice communications over that system. Under the Strongest/Adequate Signal proposal, if sufficient signal (-80 dBm or stronger) is available from the preferred carrier, then the emergency call will use the preferred carrier's system. If, however, such signal strength is below this threshold, then the handset will scan both systems for the best available channel.

Suggested rule language for Strongest/Adequate Signal

The Alliance did not propose language for the Strongest/Adequate Signal rule change. We suggest that OET-53 be amended by the insertion of the following text at the start of the second paragraph of Paragraph 2.6.3.2:

> "If the purpose of this 'origination' is to complete a call to 911 (an emergency call), and the signal strength of the strongest channel is not equal to or greater than -80dBm, the mobile station must examine the signal strength of all of the control channels assigned to System A and System B and select the channel with the strongest signal. The mobile station must then tune to the strongest . . ."

Incorrect and misleading statements in the CTIA Response

The CTIA Response states that Automatic A/B Roaming can be implemented "within the existing industry standard with no need for an unprecedented change to the cellular system compatibility specifications requested by the Ad Hoc Alliance." In fact, both Automatic A/B Roaming and Strongest Signal operate within the existing industry standard. Both use an "emergency key" to change handset system selection when 9-1-1 is dialed. Automatic A/B Roaming changes the handset selection from one side "only" to "preferred." Strongest Signal changes the handset selection to all channels.[1]

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[1] The Commission asked about the operation of Automatic A/B Roaming on dual mode and multimode handsets. A failure to complete a call in a digital mode will result in a default to the analog mode in dual mode and multimode handsets. Strongest Signal will operate when these handsets are in the analog mode.

The CTIA Response contends that "the Strongest Signal works against 9-1-1 call completion by forcing handsets to reregister on the non-preferred system." This statement is not correct. The specified call process step (OET-53, ¶ 2.6.3.2) is contained within the System Access task (¶ 2.6.3) and the standards clearly specify that **no registration event is necessary** to complete the call origination task regardless of which System in ultimately accessed. The Strongest Signal proposal removes the single side scanning limitation, which is programmed into the handset, to allow the handset to scan of both sides to find the best available access channel when 911 is dialed.[2] There is no changing of "sides" since the handset considers all channels in making its initial choice. By comparison, Automatic A/B Roaming *does require* re registration when a handset fails to find service on its preferred side and "changes sides," which process takes more time to complete than Strongest Signal.

The CTIA Response says that the Strongest/Adequate Signal "sets a -80dBm threshold for 9-1-1 calls at which point the handset would switch from the preferred to the non preferred carrier." This statement is also incorrect. The Strongest/Adequate Signal proposal simply states that all channels from both sides will be examined *if* the preferred carrier's strongest channel is below -80dBm. Even if the signal is below the -80dBm threshold, the best available channel might be from the preferred carrier. The objective of Strongest Signal is to secure the best channel of communication then available to handle the emergency call.

Attached to the CTIA Response is a "background" paper (Attachment 1.). This paper contains some admissions which underscore why the Commission should adopt the Strongest Signal rule. Specifically, the wireless industry now admits the continuing existence of coverage "holes" in the wireless network. Importantly admitted is the fact that:

> "a wireless telephone user who is located in such a hole may find that there is no signal or *insufficient signal to establish and maintain adequate communications over the wireless system accessed by the handset.* In the case of no signal from the preferred system, . . . programming a purely analog handset to use A over B or B over A will allow the 9-1-1 call to be completed by the non-preferred carrier if this carrier has coverage at that location." (Emphasis added).

"An insufficient signal to establish and maintain adequate communications" is the reason why Marcia Spielholz simply heard "dead air" as she made repeated attempts to call 9-1-1 over her cellular phone and the reason why the emergency calls from the Lechuga's cellular phone were not connected. As both Trott and ICSA attest, this problem occurs in approximately one third of the time in rural and suburban areas and is far more prevalent than the "hole" where no signal is available. Automatic A/B Roaming *does not* address the insufficient signal problem -- but Strongest Signal does.

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[2] Cellular telephones scan both sides when turned on and then look for the programmed instructions. Strongest Signal simply by-passes the single side program instruction to return to the original scanning mode of all channels when 9-1-1 is dialed.

Also attached to the CTIA Response is a letter from John Kay, the chairman of Telecommunications Industry Association ("TIA") subcommittee 45.1.[3] (Attachment 2). Mr. Kay states that "no signal level thresholds for access are specified, the ability to receive the overhead information is the indicator that the mobile can attempt to be served by the system." We know from the call detail report of the attempts to use a cellular telephone from the Lechuga accident scene to place emergency calls that the overhead information was received. As this call detail report amply demonstrates, simply being able to lock on and decode the overhead information *does not* guarantee that the handset will be able to access the system. This problem is compounded by the fact that when the handset hears and decodes the overhead information it will be prevented from switching to the other cellular system. In sum, there is no question that an "*insufficient signal to establish and maintain adequate communications*" can and will lock the handset into a position where it cannot make a voice call. This is the correct answer to question 2 instead of the dissembling reply in the CTIA Response.

The CTIA Response describes Automatic A/B Roaming in terms that obfuscate that process. For example, the use of the phrase "*unable to process the 9-1-1 call attempt*" implies that there is some analysis involved. In fact, the switch from one side to the other under the Automatic A/B Roaming proposal only occurs when there is no signal - period. Automatic A/B Roaming does not perform any complex analysis of system quality, voice channel availability or traffic congestion. It merely looks for the strongest preferred control channel and, if one is available, sends the 9-1-1 call into the system over that channel with the hope that it will be connected. The channel provided may be of very poor quality, the call may be dropped or the caller may be locked into dead air, even though a good channel of communication may be available over the other system.[4]

One of the principal criticisms of Strongest Signal has been its use of the strongest forward control channel signal which, it is said, will be fraught with unintended consequences and will fail to complete 9-1-1 calls. Since the introduction of cellular service, the only method for selecting which cell site to access when placing a call is to select the one with the strongest forward control channel signal. (See OET-53 ¶ 2.6.3.2). This selection process continues to be the *only* method in use today and is the *only* method allowed and approved by the existing cellular standards. Automatic A/B Roaming *uses this very same process* which CTIA earlier criticized as a defect of Strongest Signal. Both proposals do and must use the strongest forward control channel as the access pathway to initiate the call. The difference between Automatic A/B

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[3] This letter bears a disclaimer which states that it does not reflect "the corporate policies or the views of the Telecommunications Industry Association".

[4] The FCC asked for comment about the "double push" proposal made by Bell Atlantic Mobile. The CTIA Response seems to confuse this proposal with the Motorola "Selective Retry". We have seriously considered and rejected both of these proposals because they are a very inferior solution to the problem and would increase consumer confusion and unacceptably extend the time between the call attempt and connection.

Roaming and Strongest Signal in using this established channel selection process is that Strongest Signal eliminates the artificial partition which prevents handsets from scanning *all* of the available control channels. As a result, Strongest Signal doubles the number of pathways that are available in time of emergency.

Conclusion

Despite the fact that more than half of the existing wireless customers were persuaded to buy service for safety and security purposes, the wireless industry is extremely averse to handling emergency calls for liability and other reasons. The Commission has held that the wireless carrier's self interest in not handling emergency calls from nonsubscribers must give way to the public interest. Since Strongest Signal will deliver emergency calls from nonsubscribers, the wireless industry and their supporters have contrived reasons to resist the adoption of this rule change, the latest being Automatic A/B Roaming. The Strongest Signal rule change is clearly in the public interest because it will provide the consumer with the best available channel of communication and thus the best chance of completing the emergency call.

Pursuant to Section 1.1206 of the Commission's Rules, an original and one copy of this letter is being filed with your office. If you have any questions concerning this submission, please contact the undersigned.

Sincerely,

Carl Hilliard

cc: Wireless Telecommunications Bureau
Mr. John Cimko, Chief, Policy Division
Ms. Nancy Boocker, Deputy Chief, Policy Division
Mr. Dan Grosh, Special Counsel, Policy Division
Ms. Won Kim, Attorney, Policy Division
Mr. Marty Liebman, Engineer, Policy Division
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